

IN THE ABSTRACT:

Please amend the ABSTRACT as indicated below:

An apparatus and method for analyzing the performance of a system having at least one rotating member. Light is directed from a light source to intercept an encoded portion of the transparent disks mounted to rotating mechanical members. A portion of the light is transmitted from the encoded portions of the rotating member. ~~The transmitted portion of the light can be then to a detector where detected to recover performance information maintained therein is detected/analyzed, wherein the~~ The performance information contains performance characteristics of the system. A mechanism for transmitting a portion of the light from the encoded portion of the rotating member is also provided. A diffracted portion of the light can be detected to recover performance information. The light source can be configured as a vertical cavity surface emitting laser (VCSEL). The encoded portions of rotating members thereof may each comprise a dual layer bar code, wherein during operation the bar codes form a dual layer bar code through which light must pass. Images from a first encoded surface may interact with an image from a second encoded surface after the light beam is transmitted through the second rotating surface to produce Moirè fringes.